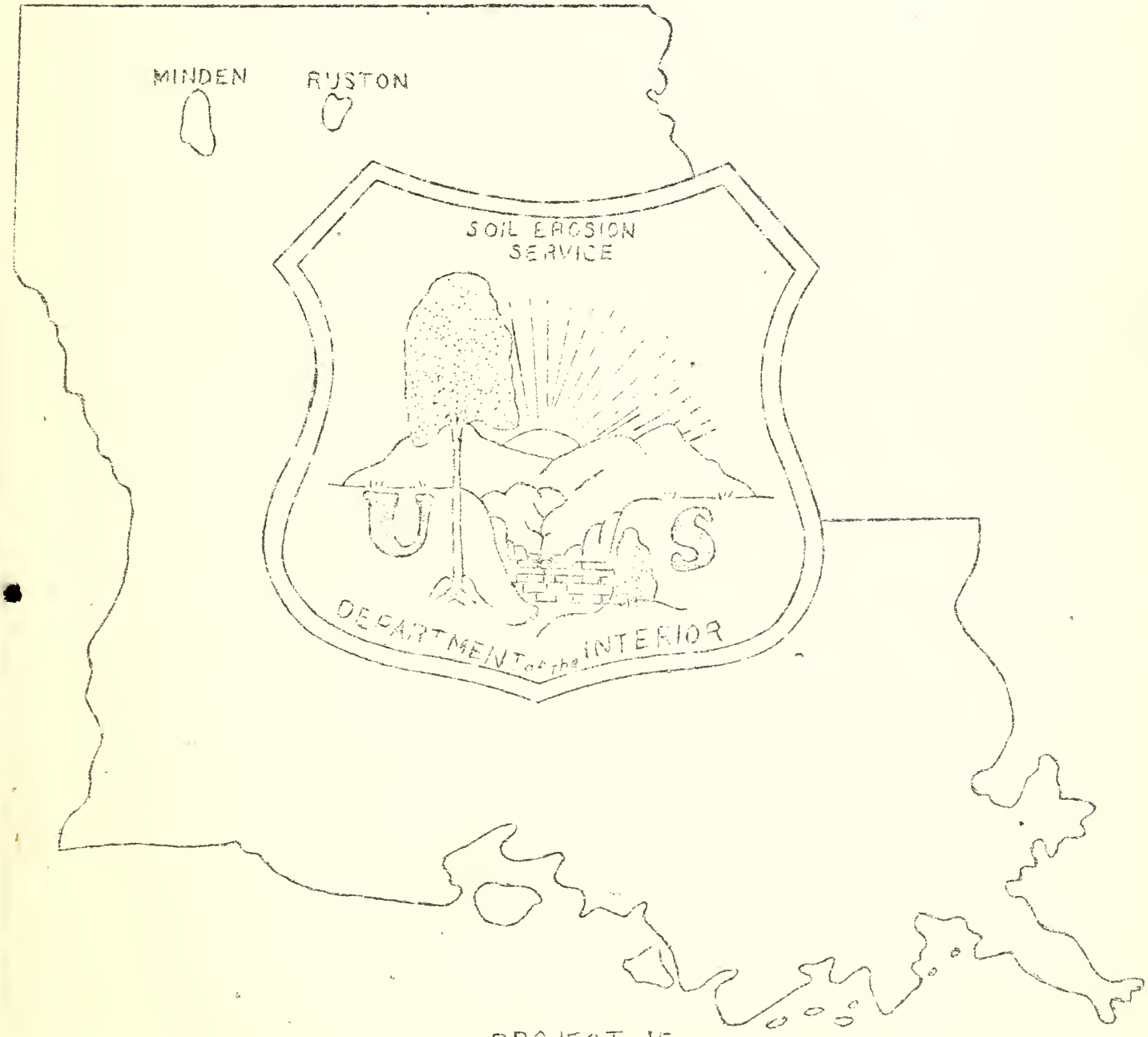
THE BRUSHY-COOLEY-CYPRESS CREEK NEWS



PROJECT 15
MINDEN LA.

Co-operators—
Turn to the engi-
neering notes—Have
terracing lines run so you
will know spots to leave un-
planted in your cultivated fields
in order to have terracing work done
after crops are in—You can rent these
strips to government—Soil Erosion
Service will figure acreage thus left
out of cultivation. Get your farm
completely terraced—Seed will
be furnished you for planting.
strip crops on these terraces.
Come in at once—take
advantage of this
opportunity for
spring and summer
terracing

Pasture

W. E. Dee, Chief of Range Management

Some interesting totals on work completed on pastures in Webster and Lincoln Parish are furnished this month by Mr. Dee. While pasture work has been slowed up some, along with all other activities in the field, because of the winter and rainy weather, the coming of sunshiny, spring days has brought new activity and the pasture work is moving along rapidly.

In addition to the regular pasture work, Mr. Dee is conducting a number of experiments on small experimental plots. These experimental plots are being watched and checked carefully and the outcome of the tests will furnish worthwhile data for the carrying on of the pasture program in this area.

Acres sodded in Webster Parish.	1,054
Acres sodded in Lincoln Parish.	600
Total pasture acres sodded.	1,654
Acres seeded in Webster Parish.	877
Acres seeded in Lincoln Parish.	501
Total pasture acres seeded	1,378
Acres limed in Webster Parish.	963
Acres limed in Lincoln Parish.	557
Total pasture acres limed.	1,520
Acres fertilized, Webster Parish. . . .	949
Acres fertilized, Lincoln Parish. . . .	551
Total acres fertilized	1,500

There is a vital need in both Webster and Lincoln parishes for more and better pastures--and throughout Louisiana, for that matter. Figures recently compiled on a survey of some 155 farms in the area of Project 15 show a pasture shortage, based on stock owned in the area, that runs into hundreds and hundreds of acres. The Soil Erosion Service is helping to build new and better pastures and those farmers of the area who are cooperating by increasing the pasturage on their individual places are the ones who will benefit now and in the future from the work being done.

Mr. Dee states that instruction in pasture work in the schools of Webster Parish, has been completed to date at Sibley, Dubberly, Heflin, Evergreen and Shongaloo.

Service News

TO DO WORK ON SUBSISTENCE HOMESTEAD PROJECT

A cooperative arrangement under which the Soil Erosion Service will direct an erosion-control and land-use program on the Federal Subsistence Homesteads Project at Monticello, Georgia, has been announced.

Under the arrangement, which combines in one area the activities of two important emergency agencies of the Interior Department, specialists of the Soil Erosion Service will direct Monticello homesteaders in the use of scientific farming methods designed to curb erosion and preserve the land.

S. E. S. BIBLIOGRAPHY

A complete bibliography on soil erosion, containing references to more than 1,160 sources of information, has been compiled.

"I feel the work . . will fill a long-standing need," stated Director Bennett. "One reason why the vastly important subject of erosion has received such scanty attention in the past has been the lack of a reliable guide to sources of information. Now, for the first time an accurate index of the principal publications containing important data on erosion is made readily accessible."

Included in the references are books, scientific papers and technical articles published in many nations of the world.

NEW ASPECT OF SOIL EROSION PROBLEM

A new and menacing aspect of the soil erosion problem has been discovered in the rapid spread of plant disease and weed pests in certain sections of the West.

Soil washed from eroding and disease-infested slopes is carrying infection to lower lands which, because of their more resistant character, have hitherto been unaffected. The disclosure was made in a report submitted to Dr. Walter C. Lowdermilk, Vice-Director of the Soil Erosion Service by Vincent F. Blanchard, County Agent, and T. R. Merryweather, Assistant County Agent for Ventura County, California.

3,500 MILES TERRACES

More than 3,500 miles of erosion control terraces have been completed under the direction of the Service, it has been announced.

Approximately 50,000 acres of land have been fully treated, with the necessary work averaging 370 feet or .07 miles of terracing per acre. In addition 36,971 terrace outlet structures having nearly 350,000 feet of artificial and natural channelway for carrying off water have been constructed.

More than 350 miles of terracing has been completed on the North Louisiana Project since work was started here.

March 1, 1935

THE BRUSHY-COOLEY-CYPRESS CREEK

NEWS

Issued at Minden, Louisiana by the U. S. SOIL EROSION SERVICE, Project No. 15, Department of the Interior. Webster and Lincoln Parishes, Louisiana

Vol. 1 No. 9

H. M. Mims, Acting Regional Director
Harold G. Anthony, Editor

TWO MEN

He was sitting on his front steps, chin resting in cupped hands, when I drove up--a perfect picture of dejected laziness.

"It's a great morning," I said to him.

"It'll do," he replied.

"Guess you'll be breaking ground and getting ready to put in another crop," I suggested to make conversation.

"Waal, it's about time to do that," he answered, "but I dunno, I dunno. Kinda figgered on gettin' my garden ready today, but I reckon it won't hurt to wait until tomorrow. Ain't no hurry. Ain't no hurry, I guess, I got all summer to work in my crops."

"Yes, but wouldn't you make more headway if you started your farming operations at the earliest possible time?"

"Don't make much difference when you start. There ain't nothing in farming noway. Anyhow, I'm kinda figuring with a fellow to go to work to the mill in a couple of weeks. Maybe I won't farm this year."

"Does the mill offer steady work?" I asked.

"This job oughta last a couple months," he shot back.

"But that won't keep your family the whole year. And then when the job does play out you won't have a crop in. What'll you do then?"

"I dunno. Guess something will turn up."

I agreed with him; I was sure he didn't know. I left him sitting there in the same position that I found him.

I had to walk across a 40-acre field to reach the second man. He didn't see me coming. He was turning up fresh-smelling earth and whistling "Happy Days Are Here Again" as he followed his mule across the field.

"Good morning," I greeted him. "Great day isn't it?"

"Don't know as I ever seen a better one," he shot back, smiling. "Yessir, this here dirt just smells plumb grand and I reckon I'm about the happiest fellow in the world this morning."

"Fine," I said. "What has happened to make you so happy."

"Happened?" He looked at me with a quizzical expression on his face. "Man, nothing ain't happened in particular--except it's spring again. Here I am romping across this field, turning up

sweet, damp smelling earth; birds is a-singin' in that thicket down yonder; why, even this danged old mule is prancin' along full of pep this morning. Happened? Man, nothing ain't happened. Nothing don't have to happen. Here's everything all around us that we need. The world is waking up. Gosh dern, it's spring-time, nothing don't have to happen."

"You're right," I said. "Things are happening so fast, that it really seems that nothing is happening."

"Yessir, the Good Lord is bringing us another springtime, another chance to put in a new crop; another opportunity to grow things."

"How'd you do last year?" I inquired.

"Well, I didn't do so well, but I don't see as how that should keep me from trying to do better this year. Just because a fellow don't make a big crop one year, ain't no reason why he should think he never will do no good. Why, I guess if I couldn't get out here in my field with the coming of every spring, I just wouldn't care 'bout going on living."

"You talk like a man with real ambition and your optimism is most refreshing," I laughed. "Your neighbor doesn't appear to have your same outlook."

"Well now, John is a good fellow, but me and him just don't see things alike. I ain't never figured no way to make a living except to get out and work my land. Seems like John things a fellow can get by without doing a little sweating."

"Is your neighbor a cooperater with the Soil Erosion Service?"

"Naw. I done my best to get John to sign up like I did, but he said wasn't no use trying to work yourself down doing all the Soil Erosion Service fellows wanted him to do. He just couldn't see it."

"How about yourself?"

"I guess I put in the hardest winter's work I ever done in my life carrying out my part of the cooperative agreement. But I ain't sorry. My place looks mighty pretty and I can already see where the work has done my land lots of good. I been farming 30 years but I ain't so smart, or so lazy that I ain't willing to try to improve on my methods. Come to think about it, I expect the work done on my farm by the Soil Erosion Service is one of the reasons I'm looking forward to this crop year. If the government is willing to do what it has for me, I don't aim to let it down by not doing my dead level best to make the most of my land."

Two men; each with the same opportunity, the same type of farm, the same kind of weather--but as far apart in their attitudes toward life as the Poles.

It is amazing, this enthusiasm, this broad perspective, which is held by most of the cooperators with the Soil Erosion Service. I could not help but think, as I left this second man's farm, that if the Soil Erosion Service had not done a thing but instill a new enthusiasm and a new ambition in the hearts of its cooperators that it has more than paid its way.

Two men. I shall watch them closely through this farming year. I think I know which will be successful.

SOILS

By A. H. Bean, Soils Expert

Herewith is presented another article on the series, discussing various soils types in the North Louisiana Project Area, by A. H. Bean, Soils Expert. Readers of the News who preserve each issue of the publication will be able to gather a complete file of material regarding soils.

ORANGEBURG FINE SANDY LOAM

Orangeburg fine sandy loam is considered one of the best types of soil found within the watershed of Project 15. It consists of from 10 to 18 inches of a brownish to yellowish gray loamy fine sand which is loose and incoherent resting on red friable sandy clay or clay loam. The red clay subsoil is very pervious to water and is also rather retentative, making the soil well drained and drought resistant.

Orangeburg is usually found on rolling to hilly sites and is very well drained both surficially and internally. This quick drainage has allowed the subsoil to oxidize to rather great depths, often to five or six feet below the surface and this oxidation has aided the permeability and structure of the soil until it has the most friable tilth for plant growth. Iron concretions are commonly scattered throughout the profile.

The natural timber growth of pines and mixed hardwoods are seldom found as most of thissoil is in cultivation. However, without addition of organic matter yields from orangeburg soils have been somewhat lowered, and they return very little farming profit. These soils are easily brought back to fertility by the use of leguminous green manure crops and organic fertilizers alons with application of well-balanced complete commercial fertilizers.

This soil is well adapted to fruits and garden truck, but will also return good yields of the common field crops.

Erosion is not severe even though the soil is found on sloping land as the rainfall easily penetrates the soil, thus lowering the run-off and wash-off. When water is concentrated, however, the soil erodes into deep, straight-sided gullies. Sheet washing is not serious, but occasionally is severe on the sides of knolls or steep slopes. The incorporation of organic matter along with careful terracing, strip cropping and contour cultivation is very successful in holding the soil in place, and the productivity of the soil will be kept up almost indefinitely.

MR. FARMER: The Soil Erosion Service is here for your benefit. Call on us!

S.E.S. Classes

Boys enrolled in the ten high schools of Webster Parish are now receiving instruction in a nine weeks' course in all phases of erosion control work as advocated and put into practice in North Louisiana by the U. S. Soil Erosion Service.

Instruction of all high school boys in the parish in this type of work was made possible through a cooperative movement sponsored by officials of Soil Erosion Service Project 15 and E. S. Richardson, superintendent of parish schools.

The course of instruction being given takes in the complete range of work being done on North Louisiana farms by the federal erosion control agency. The classes are not limited to lectures on various phases of the work, but rather consist of actual work on designated plots on or near the school grounds, so that the students may have actual experience in doing all types of erosion control work.

Realizing that the high school boys of today will be the farmers of tomorrow and that the inculcation of principles of land preservation and proper land usage in the minds of the students will be definitely reflected in the farming practices of this area in the future, it is felt that the work done with the high school boys will be of untold value to Webster Parish.

Mr. Richardson and the ten high school principals were so thoroughly convinced of the worthwhileness of the complete erosion control program that they agreed to allow a total of three and one-half days for one month to every high school boy from his studies in order that they might take advantage of the classes.

The general outline of the field work program calls for field instruction under the direction of A. H. Bean, Soils Expert; J. W. Hammett in charge of rodent control and game conservation; A. C. Morris, Agronomist; F. S. Edmiston, Chief Agricultural Engineer; W. E. Dee, Chief of Range Management; and A. S. McKean, Forester.

The land upon which the program is being carried out in every instance is so located that the students will be enabled to follow up the work from day to day and see an actual demonstration of the program being used on the farms of cooperators by the Soil Erosion Service.

"We believe this is a great piece of work," says Mr. Richardson, speaking for the school officials. "The future welfare of our nation depends upon proper land use and conservation methods. We are sure the time allowed students from regular class work for erosion control instruction will be most valuable and will pay big dividends in the future farming developments of our parish."

(Continued Next Page)

H. M. Mims, Acting Regional Director of the Louisiana project, says: "There is no better method of sending our practices and plans of land utilization into the farm homes of our area than through the high school boys, most of whom live on farms. This plan of having the students do the real work on a small demonstrational tract will teach them, as all the lectures and talks we might give never would, just how to carry out in a practical way the different phases of the procedure of work as followed by the Soil Erosion Service."

The enthusiasm of the high school boys in the instruction classes which have already been held indicates this educational program is destined to meet with real success.

This is the first instance of putting instruction in Soil Erosion Service work within the reach of high school students. It is also interesting to know that at every point where classes have been held to date there have been a number of farmers present to take advantage of the knowledge to be gained from the demonstrational work.

Josh Rowan, a progressive farmer who lives near Dubberly, is a strong believer in the work of the Soil Erosion Service, Mr. Rowan sums up his feelings in regard to the work in one short sentence. "The Soil Erosion Service has been a God-send to the farmers of this section," he says.

A. C. Woodard, a successful farmer living southeast of Dubberly says: "I wouldn't take $500 for the work that has been done on my place by the Soil Erosion Service. I feel that this work has easily added $500 to the value of my farm."

Roy Aiken, another farmer living in the southern end of the Webster parish area, near Sibley, says: "At first I didn't think much of the value of terraces but to keep from being contrary I went on and let the Soil Erosion Service terrace my land. I am now glad that I did so, because now I can see that this work is a real asset to my land."

IF YOU ARE GOING TO FARM, WHY NOT BE A GOOD FARMER AND USE THE BEST, PROVED METHODS? THIS MAY MEAN A LITTLE MORE WORK, BUT IT WILL ALSO MEAN BIGGER PROFITS

Vegetative Control

It is a matter of common observation that native vegetation found on eroded soil is sparse and dwarfed. Almost up to the present time we have taken this as a matter of course. We failed to trouble ourselves, as a nation, to go into the reasons why native grasses, much less cultivated crops, do not attain their full growth on eroded lands. We recognized, perhaps, that areas were eroded, that topsoil had been washed away, but we failed to complete our analogy as to the relation of stunted plants to eroded or eroding soils.

One does not have to be scientifically turned to recognize the fact that forage and thick-growing pasture grasses are two of the greatest enemies of erosion. The reason is simple--forage and pasture grasses simply hold rainwater where it falls, doing away with rapid run-off and consequent washing away of soil. Revegetation of eroded or denuded areas is a difficult task due to the very evident fact that even hardy plants and grasses must have a certain amount of plant food in order to survive. Expressing the point better, this difficulty of making vegetation grow on eroded land is due to (1) the low moisture content of such soil; (2) low water holding capacity of land after the topsoil is removed, which in turn results in (3) a large portion of the plants which do come up die early in the spring--a majority of them not even living through the planting season.

So serious is the loss of seedling plants on eroded areas that it is often possible to predict with precision not only the rate at which ground cover can be restored, but also the particular plants which will occupy specific areas in different degrees of depletion.

The objects of planting soil conserving plants, as hinted in a previous paragraph are: First, for the prevention of rapid run-off of rain water. Grasses and forage hold water longer than bare land, offering an opportunity for the earth to soak it up. Second, soil conserving plants naturally preserve valuable topsoil by stopping of washing. The two major objects of such plants are interlocking and closely related for once rapid run-off is controlled, soil washing, as a logical result, is done away with.

There are several ways by which the landowner may prevent loss of valuable topsoil from his cultivated fields. There are terracing, contour plowing and strip cropping. We are most concerned here with strip cropping, by which we mean planting on the contour strips of thick-rooted crops in clean cultivated fields. Among the close rooted plants which are recommended for annual strip crops are sorghum, sudan grass, oats, sod grasses, timothy grass, legumes of all kinds, lespedeza, white dutch clover and particularly in our area carpet grass and bermuda grass and oats, and some others.

It is understood, of course, that these different thick-rooted

plants are to be planted in areas where the soil and climatic conditions are suitable to their respective adaptability. It is necessary to plant close rooted crops that will live through the winter months, because land subject to erosion is bare in the winter from the time that cotton and corn (or other summer crops) are removed until spring planting. Best winter strip crops are oats, rye grasses, winter wheat and winter peas. Such crops are valuable for feed as well as holding topsoil on the land in climates where they are adaptable.

For more permanent vegetation than the strip crops suggested, or we might say for heavier vegetation such as trees, vines and shrubs, the following are recommended: Willows, cottonwood, black locust, soft maple, catalpa, yellow poplar, pine, black walnut, red oak, black oak and cedar. Again, of course, climatic adaptability must be taken into consideration.

Trees are generally planted with a spacing of four by four to six by six feet. The principal criticism which can be made of many plantings is that too few species are planted. In reforesting any area it is the best plan to use a wide variety of native plants. Probably the best assurance of a good stand is had by mixed plantings. No doubt we have many plants which present excellent soil retaining possibilities, but this property is largely unknown at the present time for the plants have not been studied with this in mind.

There are seven main requirements that should be considered in any selection of soil retaining plants. They are. (1) Type of root system; (2) method of reproduction; (3) rapidity of growth; (4) soil requirements; (5) moisture requirements; (6) abundance; (7) economic importance.

Many studies have been made on plants, but few with especial reference to their possibilities of binding soil particles. One reference book from which considerable information may be gained is "Root System of Crop Plants" by Weaver. It is necessary, however, to correlate other papers with knowledge gained by digging up plants and examining their root systems and through actual experimentation.

VISITORS: A representative group of farmers from Bossier Parish visited the Minden area on Thursday, February 21. There were about twenty-five in the group, which arrived in Minden around 10 o'clock. The men were interested in all phases of the erosion control program. They were escorted by Department Heads and Mr. Nims over a large part of the Webster parish area.

Project 15 has had a large number of visitors during the past few months. It is always a pleasure to show groups of interested farmers and business men from points outside the area in Louisiana over the work that has been and is being done. Visitors can be assured of finding a ready welcome at both the Ruston and Minden offices

A True Story

There was a time when Aunt Jane Austin and her brood of pickaninnies lived on the fat of the land. Even after the death of her husband, Aunt Jane and her "chillums" tilled their little forty acre farm and came out at the end of each crop season with some money in the bank.

That was a long time ago--at least in the comparative time of a life's span. But those happy days are gone forever for Aunt Jane Austin. The big cotton crops, the bank accounts are only memories of the past.

It was in the opening year of the twentieth century that Aunt Jane's husband moved his family into a new house on a 40-acre wooded tract which he had bought in Jackson Parish, Louisiana. The forty acres sloped westward from the top of the hill where the house was built. Aunt Jane's husband industriously set about clearing the timber from the little place. He made a clean job of the work for when he finished there were only a few trees left on the plot and those were around the house on top of the knoll.

Aunt Jane's husband was a one-horse farmer. But he made that one horse the means of producing as high as ten bales of cotton in addition to a fine vegetable garden and corn crop, which with sugar cane in the damp spot around the spring and a 'tater patch, fed the family nicely.

Life was good for a number of years. The cotton land produced heavily and the corn, 'tater and cane production was high.

Aunt Jane's husband never did know why the production of his forty acres gradually grew less and less with the passing years. Folks in those days didn't give much thought to sheet washing and the carrying away of productive topsoil by rushing rainwaters.

Cultivating of the forty acres was not as easy a task in 1920 as it had been in 1910. Little gullies had started down the gently sloping hill. Sure enough the farm was "wearing out".

Then in 1921 there came a big storm and a deluge of rain. The water rushed from the eaves of the house and formed a small channel down the hillside.

"It want no time befo' dat gully was too big to jump a mule across," Aunt Jane says, reminiscingly. "Befo' I hardly knowed whut wus goin' on, it just looked like dat gully wus more dan ten feet deep."

Let's jump a few years, now. That gully is now more than thirty feet deep. It has grown and spread in such a manner as to make

nearly half of the original forty acres useless for farming. Other smaller gullies have ripped the hillside to shreds. On the few spots between the gullies where it is still smooth enough to run a plow, Aunt Jane and her now grown children and grandchildren manage to make a bale of cotton. "It jus' looks like my whole forty acres has washed away in dat big gully," Aunt Jane says wistfully.

And it is true. Aunt Jane is now looking to the relief organizations for her bread and her children and grandchildren are renting farm land from a neighbor in an effort to make a livelihood.

Now if the plight of Aunt Jane Austin could be pointed out as the only horrible example of what unrestrained erosion can do to a hill farm, we might not be so concerned. But Aunt Jane's farm is simply one of thousands that have been ruined by the great enemy erosion.

Not just one person or one family has been deprived of its independence, but millions of acres of formerly productive farm land have been washed "into dat big gully".

In round figures, according to a national survey recently completed by the U. S. Soil Erosion Service, a total of 938,746,-352 acres have been found to be affected by gullying alone. Of this total 503,041,357 acres are moderately gullied, 425,736,488 acres are severely gullied and the astounding total of 9,968,507 acres of land have been completely destroyed for farming purposes by gullying. In addition to this, nearly one-half billion acres of land have been seriously affected by less spectacular sheet erosion. The report further shows that out of a total acreage of almost one and one-half billion acres surveyed only a little more than 540,000,000 acres were found to show little or no erosion.

When we look at these figures, we realize that the case of Aunt Jane Austin, along with thousands just like hers, must have attention if we are to keep millions of people off the relief rolls of the future and preserve the welfare of our nation as a whole.

Two hundred yards from Aunt Jane Austin's little cabin is one of the most beautiful stands of timber in Louisiana. Aunt Jane will tell you that when she moved her little family to the now denuded forty acres, that the land upon which thousands of fifty-foot-high pines are now standing was covered with saplings--such as those which were cleared off her forty acre tract.

There's a wonderful lesson in conservation to be drawn between the several hundred acre protected forest which overshadows Aunt Jane's deeply eroded hillside farm! What an earth-surface picture! And it took only a pitiful few years to draw it!

Truly the Soil Erosion Service has a man-sized job! A job which can be met most successfully when the cooperation and whole-hearted support of every individual farmer is had in the battle now being carried on against erosion.

Engineering

F. S. Edmiston, Chief Engineer

VERY IMPORTANT! READ! VERY IMPORTANT!

Farmers who have signed cooperative agreements with the Soil Erosion Service, and who desire to have terracing work done on their land after crops are put in, are urged to leave a space in their cultivated fields from 30 to 40 feet wide. By leaving such areas in the cultivated fields, it will be possible for the Soil Erosion Service tractors to get on the cultivated fields and continue terracing work after summer crops are put in.

Farmers on whose lands only about half of the required and desired terracing has been done, by leaving the uncultivated strips in their fields will be able to get all of their land terraced.

It is pointed out in this connection, that the farmers is no loser by leaving the terracing strips in his fields, for he not only gains complete terracing work for his farm, but he may rent the area thus left out of cultivation. Engineers of the Soil Erosion Service, will measure the strips and figure the acres left out of cultivation. In addition, it is pointed out that the Soil Erosion Service will furnish seed for the planting of sorghum, peas, sudan grass or lespedeza on the newly constructed terraces, thus adding the strip crop feature of erosion control to these acres and also furnishing the farm with fine feed crops.

It will be distinctly to the advantage of every cooperator who wants the terracing work finished on his farm to leave the strips as outlined above. Those who anticipate doing so should get in touch with the office at once in order that the Engineers may be able to lay off the terrace lines so there will be no confusion as to the space terraces will occupy.

Tractors in both the Ruston and Minden areas have been equipped with lights so that terracing work can be carried on at night. Present plans call for operating the tractors and graders on a two-shift basis.

While a great deal of night work has not been done since the arrival of the lights, due to the bad weather, with clearing skies and less rain, it is anticipated that the area which can be covered by the terracing equipment will be materially increased as a full night shift will be on the job.

It has been found in practice night runs that the lighting equipment is such that work can be done as well as night as in daytim

FORESTS

A. S. McKean, Forester

The importance of forests in building and retaining soil porosity and water-absorbing capacity can scarcely be overestimated. In many regions the failure of springs and streams, lowering of ground water levels, and serious increase in soil erosion can be traced directly to the removing of forests from non-agricultural lands, or by destroying the effectiveness of forest cover by repeated burning or excessive grazing. Both droughts and floods of recent years have emphasized the necessity of reducing surface water run-off and of improving those conditions of soil and vegetative cover which help to absorb and conserve rainfall.

Soil under old-growth forest has been found in experiments to be much more porous and to have a far greater water-holding capacity than the same soil cleared and cultivated.

Special importance in the experiments conducted is given to the determination of the effects of repeated forest burning and excessive grazing so prevalent in the Ozarks on the water absorptive capacity of the cherty soils of Missouri and Arkansas and Loessial soils of Southern Illinois.

During the summer of 1934 a series of tests were made on both cherty and sandy soils of the Sylamore Experimental Forest in Northern Arkansas and yellow silt loam soils of the Shawnee Experimental Forest in Southern Illinois.

One hundred tests were made on both the above areas with four applications of water. It was found in the Southern Illinois tests that the upper six inches of pasture soil was about 28% heavier and burned forest soil 35% heavier than the same volume of soil from undisturbed forest areas. These differences represent the increases in compactness and corresponding losses in porosity.

In the Southern Illinois test, undisturbed forest areas were found to absorb 22.30 percent of water applied; open pasture absorbed 4.57 percent and burned over woods, 1.43 percent.

In the tests made in Arkansas, undisturbed forest areas absorbed 42.82 percent of water applied; open pasture absorbed 9.77 percent; and burned woods, 8.817 percent.

The figures given are the average for four applications.

Thus, can be definitely seen from these very exacting tests that the importance of forests in building and retaining soil porosity and water absorbing capacity demonstrates the value of forests in protecting soils from erosion and gullying caused by the rapid run-off of rain water.

The Trial of a Soil Robber-

Unusual success has rewarded the efforts of the members of the staff of the Ruston office in the presentation of the play entitled "The Trial of a Soil Robber".

This play has been given in most of the communities of Lincoln parish and interest in the play grew so rapidly following the first few performances that members of the cast have been rushed with invitations to appear almost nightly at various points.

So wide has interest in this mock court procedure spread, that many communities outside of the area of Project 15 have invited the Ruston force to give the play.

Only one performance of "The Trial of a Soil Robber" has been given in Webster Parish, because of the fact that the cast has been kept so busy in Lincoln parish, it has been next to impossible to find a "spot" when they could come over to Webster.

Full houses, in fact overflowing audiences, have greeted each and every performance of the play.

The play has to do with the trial of one Hiram Doolittle on the charge of practicing poor farming methods and land use practices to such an extent that he has run down his farm and robbed his land of its fertility.

While the defense attorney makes a strong effort to convince the jury that Doolittle's practices are all right, he stands no real chance of carrying his point with the progressive and brainy jury which readily renders a verdict of guilty.

The prosecution builds up a strong case on the testimony of one Andrew Sharp, a soils expert, and Mr. Work, a farmer who follows the best farming and land use practices as advocated by the U. S. Soil Erosion Service.

The play brings out the advantages of the entire program of work now being put into practice on the farms of cooperators in the area of Project 15 and shows conclusively that soil erosion and gullying can be stopped by the use of proper methods.

While the play is humorous throughout, nevertheless it is serious in the important aspects of putting over the story of erosion control and proper land utilization. It tells the work of the soil erosion program in such a manner as to be convincing and educational.

Great credit is due the members of the Ruston staff who are carrying on this great piece of educational work along with their other duties.

Persons who have not yet had an opportunity to see this play are urged to watch for future announcements of where it will be given and make it a point to be on hand. It's worthwhile!

Agronomy

A. C. Morris, Agronomist

The drouth in September, October and the first half of November delayed the planting of fall strip crops to a considerable extent. However, to date 265 cooperative agreements have been signed involving approximately 33,655 acres on which definite plans of land utilization and crop rotations have been worked out.

Winter strip crops of oats and vetch have been planted to the extent of 1,165 acres. The cost of seed alone for planting this area has run to approximately $10,000 of which the farmers receive the full benefit. There are now under agreement a total of 2,124 acres upon which spring and summer strip crops will be planted. These crops will consist of sorghum, peas, sudan grass and lespedeza. Seed and fertilizer for putting in these strip crops will run to a cost of approximately $12,750. Again the farmer will be the recipient of the benefits to be derived from these crops.

In addition to serving an inestimable value in controlling erosion, the strip crops, it is believed, will serve an additional great purpose of supplying much needed feed for livestock, which is always short in this section. A very striking advantage that strip crops have over the usual method of existing cropping systems is that there are two crops planted on the same land each year. A fall or winter crop of oats and vetch, followed by a spring or summer crop of peas and sorghum. This two-crop system makes it possible for the farmer to take advantage of the various seasons of the year.

Another very important feature of the strip crops being used in this area is the building of the soil through the planting of leguminous strip crops.

The usual cause of feed shortage in this area is due to the fact that the farmers depend largely on corn for feed, and this crop is often a failure because of summer drouths. With the strip crop system the farmer has the advantages of the varying seasons of the entire year to produce one or two crops, which rarely ever fail.

Where possible it is being arranged with the farmers to leave strips of land about 30 to 40 feet wide uncultivated where terraces can be constructed during the summer. Land rented to the government can be left in such strips and when the terraces are constructed sometime between the present time and June, the Soil Erosion Service expects to furnish fertilizer, peas and sorghum seed to plant on these terraces in order that the farmer may obtain a feed crop and at the same time reduce erosion on such areas to a minimum.

Rodent Control

J. W. HAMMETT, In Charge

A check up of results achieved, as of February 15, in the gopher poisoning campaign, which is being carried on as an integral phase of the erosion control work being done by the Soil Erosion Service, indicates that more than 50,000 gophers have been killed on farms in Webster and Lincoln parishes. "The figure, which is a most conservative one," states J. W. Hammett in charge of this work, "conclusively shows the value and effectiveness of ridding fields of this little burrowing animal by poisoning."

Tests, which have been made on certain designated areas, where a close check was kept on results obtained by poisoning, show conclusively that 90% of the gophers are killed on areas where the poisoning campaign has reached.

In carrying on this work, Mr. Hammett states, that a total of five thousand pounds of potatoes have been used, this amount making one thousand gallons of bait. A total of 15½ pounds of strychnine has been used on this potato-bait.

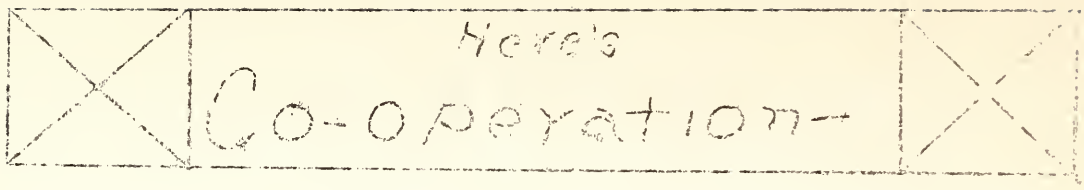
The poisoning work has been carried out on 184 farms in Webster and Lincoln parishes with slightly more than 22,904 acres having been covered. The average number of gophers killed per acre is between two and three.

Many people do not realize the importance of exterminating the gopher from their land. It is necessary to do away with these borrowing animals, however, if terraces, dams and other control structures are to be given an opportunity to perform the duty of efficiently controlling run-off of rainwater. Many breaks in terraces and various types of dams may be traced directly to the borrows made by the gophers.

Moles are also destructive, though not to the degree of the gopher along these lines. Moles are best controlled by trapping.

Farmers outside of the area, who are interested in ridding their farms of gophers will be furnished full information regarding the putting out of poison and trapping of moles by getting in touch with Mr. Hammett at the Minden office.

A second Government effort to curb destructive dust storms and soil blowing in the West and Mid-West went into active operation on February 8 with the selection of Harry J. Clemmer of Kansas to head the new wind erosion control project recently established by the Soil Erosion Service in Beadle County, South Dakota.



A practical example of what can be accomplished through unstinted cooperation on the part of federal, state and parish agencies, plus the active support of business men and farmers in a designated area, has been conclusively proved in the gully control campaign which is now being carried on in Jackson parish.

The successful culmination of this project is the result of much work and effort put forward by officials representing the Jackson parish police jury, the federal emergency relief administration, the parish farm demonstration agent and the U. S. Soil Erosion Service. The set-up of the complete program, which will be worth thousands of dollars to the farmers of Jackson parish in stopping the growing ea gullies, is as follows.

The Jackson parish police jury is furnishing transportation for the men to get to the working points in the parish as well as wire, staples and certain other material which is necessary in the construction of gully control structures. Labor for the project is furnished from the local rolls of the emergency relief administration under the direction of N. W. Smith, ERA engineer for the parish.

General educational work is being done by Leon Mitchell, parish farm agent, representing the state extension department. Technical supervision is furnished by the Engineering Department of the Soil Erosion Service in the person of W. E. Fehr, who has been placed full time on the project. The Soil Erosion Service also furnishes a half-ton truck. The farmers on whose land work is undertaken supply their teams and materials which may be found on their farms, such as poles and rocks for the building of various types of dams.

As an evidence of the interest which is being shown in the project, it may be pointed out that when the project was first submitted to the various agencies for their approval there were only nine farmers of the parish who had signed agreements for the work. At the present time there are more than fifty farms signed for gully control work with dozens more farmers on the waiting list ready to sign agreements for the work just as rapidly as the program can be carried throughout the parish.

There are a large number of unusually big gullies on many of the farms of Jackson parish--gullies which are almost daily taking an every-increasing toll of productive soil from the farms of that area. The work is moving along rapidly and farmers upon whose lands the gully control program has already reached express themselves as being greatly pleased with the program.

A large number of farmers of the parish have recently asked that the full erosion control program of the Soil Erosion Service be extended to Jackson Parish.

U. S. SOIL EROSION SERVICE
DEPARTMENT OF THE INTERIOR
Minden and Ruston, Louisiana

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Don't depend on the Lord to get you by--
Though He may help, if you do your part,
It's up to you to make the start.

Subsoil farming and bankrupt
farmers, go hand in hand. Pro-
tect your capital.

--The Northwester